

Applicants: B. Ferek-Petric
Serial No. 10/085,072
Page 5

CLAIMS

Applicant hereby confirms that claims 1-34 and 40-42 have been canceled without prejudice or disclaimer as to the subject matter thereof.

1.-34. (canceled)

35. (currently amended) An implantable multi-chamber pacing system including coronary sinus blood flow sensing capability for detecting an episode of myocardial ischemia, comprising:

atrial sense means for sensing atrial signals from an atrium of a patient's heart;

ventricular sense means for sensing ventricular signals from a patient's right ventricle;

coronary vein sense means disposed within a portion of a coronary sinus or great cardiac vein of the patient for sensing ventricular signals from the patient's left ventricle and for sensing providing an myocardial ischemia signal representing a relatively reduced blood flow rate through the patient's coronary sinus; and

signal processing means for analyzing the ventricular signals, the atrial signals and the myocardial ischemia signal representing the relatively reduced blood flow rate to declare ~~test~~ a myocardial ischemia cardiac condition based at least in part upon the myocardial ischemia signal.

36. (currently amended) The pacing system of claim 35, wherein the signal processing means includes analyzing means for integrating the myocardial ischemia signal representing the relatively reduced blood flow rate signal from the coronary vein sense means.

Applicants: B. Ferek-Petric
Serial No. 10/085,072
Page 6

37. (currently amended) The pacing system of claim 35 and further including dispensing means for dispensing a therapeutic drug when the myocardial ischemia cardiac condition is declared~~detected~~.
38. (currently amended) The pacing system as described in claim 35, comprising programmer means for ~~enabling~~energizing the signal processing means.
39. (currently amended) The pacing system as described in claim 35, further comprising defibrillation means for generating and providing a defibrillation pulse to the patient's heart.
- 40.-42. (canceled)
43. (new) A computer readable medium for storing instructions for performing a method of cardiac pacing, including a coronary sinus blood flow sensing capability for detecting an episode of myocardial ischemia and optionally responding to a detected episode with a fluid therapeutic agent, said medium comprising:
- instructions for sensing atrial signals from an atrium of a patient's heart;
 - instructions for sensing ventricular signals from a patient's right ventricle;
 - instructions for sensing a blood flow metric from a sensor disposed within one of a portion of a coronary sinus and a cardiac vein and
 - instructions for providing a myocardial ischemia signal representing a relatively reduced blood flow rate through the portion of one of the coronary sinus and the cardiac vein; and
 - instructions for analyzing the ventricular signals, the atrial signals and the myocardial ischemia signal representing the relatively reduced blood flow rate to declare a myocardial ischemia cardiac condition.

Applicants: B. Ferek-Petric

Serial No. 10/085,072

Page 7

44. A medium according to claim 43, wherein the instructions for analyzing the myocardial ischemia signal comprises:

instructions for comparing a threshold blood flow rate to the relatively reduced blood flow rate and in the event that the threshold blood flow rate exceeds the relatively reduced blood flow rate, then declaring the presence of a myocardial ischemia.